

What is claimed is:

1. A curable urethane resin composition comprising:
a blocked urethane prepolymer which is prepared through
5 condensation polymerization of a polyol and an organic isocyanate and
has a terminal isocyanate group protected by a blocking agent; and
a polymer dispersed or dissolved in the blocked urethane
prepolymer.
- 10 2. The curable urethane resin composition according to claim 1,
wherein the resin composition further comprising a crosslinking agent
which performs crosslinking reaction with the terminal isocyanate group of
the urethane prepolymer formed through deblocking of the blocked
urethane prepolymer, the crosslinking agent performing the crosslinking
15 reaction to make the prepolymer form a higher molecule while
containing the polymer therein.
3. The curable urethane resin composition according to claim 1,
wherein a weight ratio of the blocked urethane prepolymer to the
20 polymer is within the range of 100 : 0.2-60.
4. The curable urethane resin composition according to claim 1,
wherein at least one kind of agent selected from oximes, secondary
amines, phenols, alcohols and hydroxyl group-containing (meth)acrylic
25 acid esters is used as the blocking agent.

5. The curable urethane resin composition according to claim 1, wherein at least one kind of polyol having a hydroxyl equivalent of 50-2,000 selected from polyether polyols, polyester polyols and vinyl-(meth)acrylic acid ester copolymerized polyols is used as the polyol.

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6. The curable urethane resin composition according to claim 1, wherein at least one kind of monomer selected from aromatic diisocyanates, chain aliphatic diisocyanates and cyclic aliphatic diisocyanates; and oligomers thereof; is used as the organic isocyanate.

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7. The curable urethane resin composition according to claim 2, wherein at least one kind of agent selected from polyols which has a hydroxyl equivalent of 10-1,000 and is at least either one of aminopolyether polyols prepared through addition of lower alkylamine to alkylene oxide, polyether polyols, polyester polyols and vinyl-(meth)acrylic acid ester copolymerized polyols; acid hydrazides; aminoguanidines; dicyandiamides; guananyl ureas; guanamines; melamines; hydantoins; acid imides and triazine ring-containing compounds; is used as the crosslinking agent.

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8. The curable urethane resin composition according to claim 1, wherein the polymer is acrylic resins, phenolic resins, epoxy resins, melamine resins, polyester resins, styrene resins, polyethylene resins, polyamide resins or polyurethane resins.

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9. The curable urethane resin composition according to claim 1,

wherein the polymer is an acrylic resin of a copolymer of a (meth)acrylic acid ester and at least one kind of vinyl group-containing compound selected from an unsaturated group-containing carboxylic acid, a vinyl ester, a vinyl ether, a maleic acid ester and a fumaric acid ester, or of a polymer of a (meth)acrylic acid ester.

10. The curable urethane resin composition according to claim 1, wherein the polymer has an average molecular weight of 200-4,000,000 and a degree of polymerization of 1-40,000.

11. The curable urethane resin composition according to claim 1, wherein the blocked urethane prepolymer has an average molecular weight of 1,000-500,000.

12. A heat curable plastisol composition for coating comprising:

a curable urethane resin composition comprising

a blocked urethane prepolymer which is prepared through condensation-polymerization of a polyol and an organic isocyanate and has a terminal isocyanate group protected by a blocking agent, and

a polymer dispersed or dissolved in the blocked urethane prepolymer; and

fine powder of an acrylic resin.

13. The heat curable plastisol composition for coating according to claim 12, wherein the heat curable plastisol composition further comprising a crosslinking agent which performs crosslinking reaction with

the terminal isocyanate group of the urethane prepolymer formed through deblocking of the blocked urethane prepolymer, the crosslinking agent performing the crosslinking reaction to make the prepolymer form a higher molecule while containing the polymer therein.

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14. The heat curable plastisol composition for coating according to claim 12, wherein the blocked urethane prepolymer has an average molecular weight of 1,000-500,000 and the polymer has an average molecular weight of 200-4,000,000 and a degree of polymerization of 1-40,000.

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